

**Before the  
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION  
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400005  
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**IA No. 50 of 2024 in Case No. 82 of 2024**

**Application praying for urgent listing of Petition in Case No. 82 of 2024**

**Case No. 82 of 2024**

**MSEDCL seeking approval to long term procurement of 1468 MW Firm and Dispatchable Renewable Energy Power from grid connected Renewable Energy power projects with energy storage systems selected by SJVN Limited.**

Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)...

Petitioner

SJVN Limited (SJVN)...

Respondent

**Coram**

**Sanjay Kumar, Chairperson**

**Anand M. Limaye, Member**

**Surendra J. Biyani, Member**

For the Petitioner

: Ms. Deepa Chawan (Adv.)

For the Respondent

: Mr. Adarsh Tripathi (Adv.)

**ORDER**

**Date: 16 October 2024**

1. Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) has filed the Present Petition being Case No. 82 of 2024 on 24 April 2024 under Section 63 of the Electricity Act, 2003 read with Regulation 7 of MERC (Renewable Purchase Obligation, its Compliance and implementation of Renewable Certificate Framework) (First

Amendment) Regulations, 2024 (RPO Regulations, 2024) and Regulation 39 (a) & (c) of MERC (Transaction of Business and Fees and Charges) Regulations, 2022. In the present Petition, MSEDCL is seeking adoption of tariff for 1468 MW Firm and Dispatchable Renewable Energy (**FDRE**) power from SJVN and approval to Power Sale Agreement (PSA) and Power Purchase Agreement (PPA).

2. **MSEDCL's main prayers are as under:**

- “
- a) *To admit the Petition as per the provisions under Section 63 of the Electricity Act (EA), 2003.*
  - b) *To accord approval for adoption of tariff for 1468 MW firm and Dispatchable Renewable Energy (FDRE) from SJVN at discovered tariff Rs. 4.45-4.46 per kWh (including Trading Margin) as discovered in the e-reverse auction conducted by SJVN.*
  - c) *To accord approval for Power Sale Agreement (PSA) and Draft PPA.*
  - d) *To consider procurement of firm and Dispatchable Renewable Energy (FDRE) from SJVN for meeting solar RPO requirement of MSEDCL.*
  - e) *To consider the submission made by the Petitioner and consider the same positively while deciding the Petition;*  
....”

3. **MSEDCL in its Petition has stated as follows:**

- 3.1. SJVN vide its letter dated 22 February 2024 sought consent from MSEDCL for procurement of FDRE Power from ISTS connected RE power projects with energy storage systems with Green Shoe option.
- 3.2. SJVN in its letter dated 22 February 2024 informed following:
  - a) MNRE vide its Office Memorandum dated 24 April 2023 has designated SJVN Ltd. as Renewable Energy Implementing Agencies (REIAs).
  - b) SJVN floated tender for 1500 MW FDRE Power with 'Greenshoe Option' of additional capacity up to 1500 MW (cumulative capacity of 3000 MW) on 20 June 2023. The reverse auction has been conducted on 07 November 2023.

c) The Salient features of Tender are as under:

| <b>Project configuration</b>  | <b>Wind/Solar and ESS</b>   |
|---|---|
| <b>Average Annual CUF</b>   | The Average Annual CUF of ~72% has been submitted by the RE Developers, which is equivalent to around (17) Hours of availability on daily basis. However, the same may vary as per the availability of Wind as well as Solar Radiation.   |
| <b>Energy Storage System (ESS)</b>  | The Renewable Power Developer (RPD) is mandated to install ESS capacity @ minimum (250) kWh per MW capacity being contracted under the PPA. However, the RPD may install ESS of higher capacity and shall design the FDRE project configuration so as to achieve the stipulated peak hours availability and annual generation from the project. |
| <b>Duration of peak Power</b>   | Distribution Licensee would get (04) hours of peak power during the day with 90 % availability on monthly basis (i.e. 02 hours in the morning during the period 05:00 Hrs to 11:00 Hrs & 02 hours in evening during the period 17:00 Hrs to 23:00 Hrs on daily basis as per the schedule given by the Buying Entity.                            |
| <b>Penalty Provisions for not meeting the Peak Power criteria</b>   | On monthly basis (i.e. if availability during Peak hours would be less than 90 %, then penalty of (1.5) times the applicable tariff would be applicable to the developers.)   |
| <b>Penalty Provisions for not meeting the Annual CUF (%) (within + 10% and - 15% of the declared value)</b> | Penalty of (1.5) times the applicable tariff would be applicable to the developers.   |
| <b>Delivery Location</b>  | ISTS Sub-Station (Pan India)  |
| <b>Scheduled Commencement of supply Date /Time lines of implementation of Project:</b>                      | within (24) months from the date of signing of Power Purchase Agreement.  |
| <b>Tenure of PPA</b>  | (25) Years  |

d) SJVN as ‘inter-mediatory Procurer’ shall purchase FDRE from Generators and sell to States/Distribution Licensees and SJVN shall charge Trading margin of Rs.0.07/kWh in addition to discovered tariff.

e) SJVN shall sign Power Purchase Agreement (PPA) with RE Power Generators and back-to-back Power Supply Agreements (PSA) with States for (25) years from CoD of project.

- f) ISTS charges and losses shall be dealt in line with CERC (sharing of Inter State Transmission Charges and Losses) (First Amendment) Regulations, 2023 dated 07 February 2023 and subsequent amendments and clarifications thereto, as applicable.
- g) The Distribution Licensees are responsible for obtaining Grid Access/GNA as per the CERC (Connectivity and General Network Access to the interstate Transmission System) Regulations, 2022 and amendments issued from time to time.
- h) The reverse auction has been conducted on 07 November 2023 and the tariff discovered is Rs. 4.38-4.39/- per kWh (excluding Trading Margin of Rs.0.07 per kWh). After inclusion of trading margin, the applicable tariff would be Rs.4.45-4.46 per kWh.
- i) The details of CUF, Solar, Wind and ESS capacity informed by SJVN is as under:

| Sr. No./ Bidders | Contracted Capacity Awarded to Bidders |           |           |                         | CUF Proposed by Bidders (%) |
|------------------|--|-----------|-----------|-------------------------|-----------------------------|
|                  | Solar (MW)                             | Wind (MW) | ESS (MWh) | Contacted Capacity (MW) |                             |
| 1                | 250                                    | 350       | 63        | 250                     | 74.5                        |
| 2                | 200                                    | 300       | 60        | 200                     | 74                          |
| 3                | 200                                    | 403       | 50        | 200                     | 75                          |
| 4                | 56                                     | 191.4     | 91        | 150                     | 60.25                       |
| 5                | 50                                     | 201       | 20        | 80                      | 80                          |
| 6                | 150                                    | 150       | 30        | 120                     | 70                          |
| 7                | 200                                    | 200       | 46        | 184                     | 75                          |

- j) Further, additional contracted capacity under Green Shoe option is given below:

| Sr. No./ Bidders | Additional Contracted Capacity Awarded to Bidders under Greenshoe Option |           |           |                         | CUF Proposed by Bidders (%) |
|------------------|--|-----------|-----------|-------------------------|-----------------------------|
|                  | Solar (MW)   | Wind (MW) | ESS (MWh) | Contacted Capacity (MW) |                             |
| 1                | 350  | 450       | 81        | 320                     | 74.5                        |
| 2                | 120  | 180       | 36        | 120                     | 74                          |
| 3                | 260  | 396       | 65        | 260                     | 75                          |
| 4                | 62.5   | 251       | 25        | 100                     | 80                          |
| 5                | 188  | 201       | 38        | 150                     | 70                          |
| 6                | 300  | 300       | 58.5      | 234                     | 75                          |

- 3.3. MSEDCL vide letter dated 01 March 2024 issued in-principle consent for procurement of 2368 MW firm and dispatchable RE (FDRE) power from ISTS connected RE power projects with energy storage systems with Green Shoe option at discovered tariff i.e Rs.4.46 (Rs.4.39+Rs.0.07).
- 3.4. SJVN vide its letter dated 12 March 2024 accepted MSEDCL's request and agreed for waiver of additional risk premium of Rs.0.10/kWh in absence of State Government Guarantee and revised the quantum offered to 1468 MW only due to their pre-commitments with other DISCOMs:
- a) 534 MW Firm and Dispatchable RE at the tariff rate of Rs.4.46/kWh (Rs.4.39/kWh Discovered tariff+Rs.0.07/kWh as trading margin).
- b) 934 MW Firm and Dispatchable RE at the tariff rate of Rs.4.45/kWh (Rs.4.38/kWh Discovered tariff+Rs.0.07/kWh as trading margin).
- 3.5. Accordingly, MSEDCL has signed Two (2) PSAs for 534 MW and 934 MW FDRE at tariff rates as above on 13 March 2024. The details of bidder's are as under:

| Sr. No. | Bidders  | Contracted Capacity Awarded to Bidders   |   | Additional Contracted Capacity Awarded to Bidders under Greenshoe Option |   | CUF Proposed by Bidders (%) |
|---------|--|--|---|--|---|-----------------------------|
|         |  | Tariff Including Trading Margin (Rs/kWh) | Contracted Capacity Awarded to Bidders (MW) | Tariff Including Trading Margin (Rs/kWh)                                 | Contracted Capacity Awarded to Bidders (MW) |                             |
| 1       | M/s ACME Cleantech Solutions Private Limited   | 4.45                                     | 250   | 4.45   | 320   | 74.50                       |
| 2       | M/s Juniper Green Energy Private Limited       | 4.45                                     | 200   | 4.45   | 120   | 74                          |
| 3       | M/s TATA Power Renewable Energy Limited        | 4.45                                     | 200   | 4.45   | 260   | 75                          |
| 4       | M/s Solar craft Power India 16 Private Limited | 4.46                                     | 150   | -  | -   | 60.25                       |
| 5       | M/S TEQ Green Power XVI Private Limited        | 4.46                                     | 80  | 4.45   | 100   | 80                          |
| 6       | M/s Hero Solar Energy Private Limited          | 4.46                                     | 120   | 4.45   | 150   | 70                          |
| 7       | M/s RENEW Solar Power Private Limited          | 4.46                                     | 184   | 4.45   | 234   | 75                          |

3.6. As on 29 February 2024, MSEDCL contracted 14806 MW renewable energy capacity for meeting RPO requirements, out of which 10061 MW has been commissioned.

3.7. MSEDCL's Solar RPO compliance is as below:

| <b>Period</b>            | <b>Shortfall in Mus</b>  |
|--------------------------|--------------------------|
| FY 2020-21               | 4381 (Cumulative)        |
| FY 2021-22               | 1177 (standalone)        |
| FY 2022-23 (Provisional) | 1174 (standalone)        |
| <b>Total</b>             | <b>6732 (Cumulative)</b> |

Considering the future Solar RPO targets, MSEDCL needs to procure considerable quantum of Solar power for fulfillment of RPO targets.

3.8. The recent discovered tariff in various tenders is as under:

| <b>Tender Floated by</b>                              | <b>Capacity (MW)</b> | <b>Month</b> | <b>Rate (Rs./kWh)</b>                            |
|---|----------------------|--------------|--|
| NHPC Pan India Solar-Wind-Storage Hybrid (Firm Power) | 1500                 | Feb.24       | 4.64 (Rs. 4.80/kWh with losses & trading margin) |
| REMCL Pan India Solar-Wind-Storage Hybrid (RTC)       | 750                  | Jan.24       | 4.43 (Rs. 4.52/kWh with losses)                  |

3.9. The FDRE power offered by SJVN will be helpful to meet peak demand at the rate of Rs. 4.45-Rs.4.46 / kWh which is much lower as compared to the Exchange Rate.

3.10. Increasing RE mix in the grid will lead to requirement of more firm and dispatchable generation source. Further, with the introduction of Green Open Access, Commercial & Industrial consumers will increasingly opt for supply from RE Open Access (primarily solar power) and will depend on MSEDCL for the remaining supply during non-RE supply hours. The SJVN tender offers annual CUF of appx. 72% along with 04 hours of peak power (02 hours in the morning & 02 hours in evening) with 90 % availability. The Average Annual CUF of appx. 72% has been submitted by the RE Developers, which is equivalent to around 17 Hours of availability on daily basis.

3.11. It is expected that the quantum of generation during solar hours would be much more than the load requirement of Distribution Licensees during solar generation hours. Due to the increase in quantum of supply during solar generation hours, there would be a surplus during day time and therefore the prices on power exchanges would be considerably low. On the other hand, during morning and evening peak hours, when there is no solar generation, considering the increase in demand of Industrial, commercial and domestic categories, there would be a shortfall in supply during these hours and the prices on

exchanges are expected to soar at an alarming rate. Therefore, going forward there would be a huge gap between the prices discovered on exchanges during solar and non-solar hours.

- 3.12. The shortfall of MSEDCL during morning peak is about 1000 MW and the average rate is Rs. 6 to 8/kWh. Also, shortfall of MSEDCL during evening peak is about 1200 MW and the average rate is Rs. 8 to 10/kWh. Further, the FDRE power will be required to meet the RPO obligation requirements w.r.t. Wind, Solar and Energy Storage System as determined by the Commission.
- 3.13. The landed tariff to MSEDCL will be around Rs. 4.38 & 4.39/kWh + 0.09/kWh (transmission charges) + 0.07/kWh (Trading Margin) = Rs.4.54/kWh & 4.55/kWh. At present there are no transmission charges applicable. The APPC rate of MSEDCL for FY 2023-24 is Rs. 4.81 per unit.

4. **SJVN in its Reply dated 23 July 2024 stated following:**

- 4.1. In present transaction, SJVN is acting as a trader/facilitator for a trading margin of Rs.0.07/kWh. The said Trading Margin is stipulated in the RfS document and is strictly in accordance with the MoP's Guidelines for tariff based competitive bidding process for procurement of firm and dispatchable power from grid connected renewable energy power projects with Energy Storage systems (Competitive Bidding Guidelines, 2023) dated 9 June 2023 as well as Regulation 8 (1) (d) of the CERC Trading License Regulations, 2020.
- 4.2. Regulation 8 (1) (d) of the CERC Trading License Regulation, 2020 states that for transactions under long term contracts, the trading margin shall be as mutually decided between the Trading Licensee and the Seller. Accordingly, the Trading Margin of Rs.0.07/kWh has been mutually agreed between the MSEDCL and SJVN. The Trading Margin does not require any prior approval from the Commission and the transacting parties to decide mutually and amicably. Furthermore, Clause 2.2 (h) (ii) of the competitive bidding guidelines, 2023 provides that Trading Margin of Rs.0.07/kWh shall be payable by end procurer to intermediary procurer. Therefore, the trading margin of Rs.0.07/kWh is completely justified and in accordance with the Regulations.
- 4.3. The bidders have been selected by the process of e-bidding followed by e-reverse auction process.

- 4.4. For the purpose of adoption of Tariff under Section 63 of the Electricity Act, 2003, SJVN has already approached the CERC vide Petition No. 79/AT/2024. Petition for adoption was last listed on 22 May 2024 and got reserved Orders.
- 4.5. Power Sale Agreement (PSA) has been signed between MSEDCL and SJVN on 13 March 2024 for procurement of 1468 MW FDRE power at a tariff of Rs. 4.45-4.46/kWh including the trading margin of Rs. 0.07/kWh for a period of 25 years subject to the approval of the Commission.
- 4.6. SJVN has throughout the process, complied with all the necessary guidelines and regulations and taken all necessary steps for requisite approvals before the CERC. There is no delay in the implementation and execution in terms of the RfS issued by SJVN. Based on the above, the approval of the PSA by the Commission is consistent with the guidelines issued by the MoP as well as the conditions of the RfS.
5. **At the E-hearing held on 26 July 2024:**
- a. The Advocate of MSEDCL elaborated the background of the proposed procurement.
  - b. The Advocate of SJVN elaborated on its role as an intermediary procurer and bidding process followed by it. He submitted that for adoption of tariff, it has filed a Petition before CERC, and the matter has been reserved for Orders.
  - c. Considering the nature of the procurement, the Commission enquired MSEDCL about the need of the proposed procurement in line with the Resource Advocacy Framework Regulations. Further, the Commission sought the details regarding the regulatory provisions under which the proposed procurement is planned.
  - d. With regards to Tariff adoption, the Commission opined that it would be better to wait for Order of CERC on tariff adoption and directed SJVN to submit the copy of CERC Order once it is issued.
6. **SJVN in its additional submission dated 12 August 2024 stated as below:**
- 6.1. SJVN vide letters dated 22 September 2023, 15 December 2023 & 22 February 2024 approached MSEDCL offering FDRE power. In response, MSEDCL vide its letter dated 01 March 2024 gave its in-principle consent for procurement of 2368 MW FDRE Power through SJVN as REIA.



- 6.2. SJVN was able to allocate only 1468 MW FDRE Power to MSEDCL due to prior commitment / consent received from other Distribution Licensees for 900 MW FDRE Power. Accordingly, a PSA has been executed between MSEDCL and SJVN on 13 March 2024.
- 6.3. After having followed the detailed process for tendering, SJVN approached the CERC seeking adoption of Tariff under Section 63 of the Electricity Act,2003 without any delay. The CERC after having gone through the entire record, passed the Order dated 01 August 2024 thereby adopting the individual tariff for RE power developer. CERC adopted tariffs are as below:

**Towards initial allocated capacity**

| Sr. No. | Name of the Successful Bidder             | Contracted Capacity | Applicable Tariff (Rs./ kWh) |
|---------|---|---------------------|------------------------------|
| 1       | M/s. ACME Cleantech Solutions Pvt. Ltd.   | 250 MW              | 4.38/-                       |
| 2       | M/s. Hero Solar Energy Pvt. Ltd.          | 120 MW              | 4.39/-                       |
| 3       | M/s. Juniper Green Energy Pvt. Ltd.       | 200 MW              | 4.38/-                       |
| 4       | M/s. Tata Power Renewable Energy Ltd.     | 200 MW              | 4.38/-                       |
| 5       | M/s. Renewable Solar Power Pvt. Ltd.      | 184 MW              | 4.39/-                       |
| 6       | M/s. Solar Craft Power India 16 Pvt. Ltd. | 150 MW              | 4.39/-                       |
| 7       | M/s. TEQ Green Power XVI Pvt. Ltd.        | 80 MW               | 4.39/-                       |

**Towards allocation of Power of under Green Shoe Option**

| Sr. No. | Name of the Successful Bidder          | Contracted Capacity | Applicable Tariff (Rs / kWh) |
|---------|--|---------------------|------------------------------|
| 1       | M/s. ACME Cleantech Solutions Pvt. Ltd | 320 MW              | 4.38/-                       |
| 2       | M/s. Hero Solar Energy Pvt. Ltd.       | 150 MW              | 4.38/-                       |
| 3       | M/s. Juniper Green Energy Pvt. Ltd.    | 120 MW              | 4.38/-                       |
| 4       | M/s. Tata Power Renewable Energy Ltd.  | 260 MW              | 4.38/-                       |
| 5       | M/s. Renewable Solar Power Pvt. Ltd.   | 234 MW              | 4.38/-                       |
| 6       | M/s. TEQ Green Power XVI Pvt. Ltd.     | 100 MW              | 4.38/-                       |

- 6.4. The CERC in its Order dated 01 August 2024 held that the selection of the successful bidders and discovery of the tariff has been done through a transparent process of competitive bidding.

**7. MSEDCL in its additional submission on dated 13 September 2024:**

- 7.1. The proposed procurement in line with the Resource Adequacy Framework. The Commission in its order dated 12 July 2024 in Case No.96 of 2024 has dealt the issue of Resource Adequacy extensively and MSEDCL relied upon the same.

7.2. MSEDCL is working in close co-ordination with MSETCL for transmission network development for being aligned with the requirements of MSEDCL. MSEDCL has communicated to MSETCL its future demand requirements from inter-state power stations. MSETCL has been requested to prioritise development of enhance transmission adequacy plan including the following:

- i) Initiating projects to increase the ATC of the interstate transmission network, to accommodate projected procurement from interstate sources.
- ii) Designing the transmission network with scalability to accommodate future increases in generation capacity and demand.

7.3. The following table shows the CEA’s Resource Adequacy planning in MW terms:

| Year           | Thermal | Solar        | Wind         | Hydro | Nuclear | PSP | D-RE  | Biomass | Storage (4hrs) | Gas  | STOA | Total         |
|----------------|---------|--------------|--------------|-------|---------|-----|-------|---------|----------------|------|------|---------------|
| <b>2025/26</b> | 22442   | <b>17068</b> | <b>3905</b>  | 2812  | 1186    | 574 | 3001  | 3439    | 0              | 1076 | 3310 | <b>58813</b>  |
| <b>2026/27</b> | 22442   | <b>21568</b> | <b>5405</b>  | 2921  | 1186    | 574 | 4050  | 3439    | 378            | 1076 | 2359 | <b>65399</b>  |
| <b>2027/28</b> | 22442   | <b>25068</b> | <b>6905</b>  | 3234  | 1186    | 574 | 5171  | 3439    | 853            | 1076 | 1687 | <b>71635</b>  |
| <b>2028/29</b> | 22670   | <b>26285</b> | <b>8405</b>  | 3338  | 1186    | 574 | 6379  | 3439    | 1180           | 1076 | 2057 | <b>76589</b>  |
| <b>2029/30</b> | 25275   | <b>26285</b> | <b>9905</b>  | 3338  | 1186    | 574 | 7737  | 3439    | 1180           | 1076 | 1117 | <b>81113</b>  |
| <b>2030/31</b> | 25894   | <b>27285</b> | <b>11405</b> | 3338  | 1186    | 574 | 8818  | 3439    | 1320           | 1076 | 1250 | <b>85585</b>  |
| <b>2031/32</b> | 26018   | <b>28285</b> | <b>12905</b> | 3626  | 1186    | 574 | 9922  | 3439    | 1411           | 1076 | 1218 | <b>89660</b>  |
| <b>2032/33</b> | 26560   | <b>29285</b> | <b>14405</b> | 3949  | 1186    | 574 | 11254 | 3439    | 1755           | 1076 | 1487 | <b>94970</b>  |
| <b>2033/34</b> | 27562   | <b>30285</b> | <b>15905</b> | 3949  | 1186    | 574 | 12694 | 3439    | 2094           | 1076 | 1457 | <b>100222</b> |

7.4. MSEDCL requires 21568 MW solar and 5405 MW wind up to FY 2026-27. However, the high penetration of variable and intermittent renewable energy (RE) poses challenges such as grid balancing and underutilisation of the transmission system. These challenges can be solved through FDRE power, which is obtained by integration of energy storage systems (ESSs).

7.5. FDRE provides assured round-the-clock (RTC) power. This procurement of 1468 MW will be part of the Resource Adequacy Plan to be filed before the Commission in compliance of MERC Resource Adequacy Regulation.

7.6. Under 1468 MW the components included are 1359 MW solar, 2221 MW wind and ESS as 461 MW. Thus, the combination of these components facilitates to get solar energy, wind energy as well as energy during the peak hours of MSEDCL.

7.7. CERC provide a regulatory framework to facilitate non-discriminatory Open Access to Licensees or generating companies or consumers for use of Inter-State transmission

system through General Network Access. In this regard, it has introduced GNA Regulations, 2022. The responsibility of securing GNA would be of the procurer.

- 7.8. The PSA contains the relevant provisions of the PPA on a back-to-back basis and stipulations regarding trading margin of Rs. 0.07/kWh which is payable by the End Procurer to the Intermediary Procurer.
- 7.9. MSEDCL made reference to the Commission's past Order including Orders in Case No.109 of 2017, 163 of 2018, 346 of 2019 and 66 of 2023 wherein the Commission has approved the procurement through intermediary procurer.
- 7.10. On 1 August 2024, CERC issued its Order in Petition No. 79/AT/2024 wherein it adopted the discovered tariff for FDRE power from ISTS connected projects.
8. SJVN filed IA No.50 of 2024 on 19 September 2024 and sought urgent listing of matter.
9. At the e-hearing held on 20 September 2024, the Commission heard the IA No.50 of 2024 along with main matter in Case No.82 of 2024. The Advocate of SJVN informed that CERC has adopted the tariff discovered through Competitive bidding vide its Order dated 1 August 2024. Advocate appearing on behalf of MSEDCL submitted that it has made its submission in compliance with Daily Order dated 26 July 2024. The Commission noted the compliance and reserved the matter for Orders.

#### **Commission's Analysis and Rulings:**

10. The Commission notes in present Petition MSEDCL is seeking approval to procurement of FDRE power of 1468 MW from SJVN at discovered rate of Rs.4.45-4.46 per kWh (includes 7 Paise/Unit Trading Margin and CERC adopted tariff of Rs 4.38-Rs4.39 for various RE developers). SJVN is an Intermediary procurer which shall purchase FDRE from RE Generators and sell to MSEDCL (i.e., Distribution Licensee).
11. Before delving into merits of the matter, it would be appropriate to highlight following timeline in the proposed procurement:

| <b>Date</b> | <b>Particulars</b>  |
|-------------|---|
| 20.06.2023  | - SJVN floated tender for 1500 MW FDRE power with Greenshoe option of additional capacity of 1500 MW (cumulative up to 3000 MW) |
| 07.11.2023  | - The reverse auction has been conducted and tariff discovered is Rs.4.38-4.39/ kWh (excluding trading margin of Rs.0.07/kWh).  |

| Date       | Particulars   |
|------------|---|
| 22.02.2024 | - SJVN sought consent from MSEDCL with quantum (in MW) for FDRE projects.   |
| 01.03.2024 | - MSEDCL issued in-principle clearance for procurement of 2368 MW FDRE power.   |
| 12.03.2024 | - SJVN agreed to waive additional risk premium of Rs.0.10 per unit in absence of State Government Guarantee and revised the quantum offered to 1468 MW. |
| 01.08.2024 | - Tariff has been adopted by CERC vide its Order dated 01 August 2024 in Petition No.79/AT/2024   |

12. With above background and submissions made during proceeding, the Commission frames following issues for its consideration:

- a. Quantum of power procurement to be allowed to MSEDCL;**
- b. Competitiveness of the rate proposed for approval;**
- c. Trading Margin (7 Paise per Unit) in present transaction;**
- d. Availability of Inter-State Transmission Corridor for procurement of power.**

The Commission's ruling on above issues is provided in the subsequent paragraphs.

### **13. Issue A: Quantum of Power Procurement to be allowed to MSEDCL**

13.1. The Commission notes that MSEDCL has filed the present Petition with (2) fold objectives i.e. to meet future demand by accommodating RE sources in power basket and compliance of RPO targets.

13.2. In Petition, MSEDCL has referred to year wise contracted capacity projections (in MW), as mentioned in CEA's Resource Adequacy Study. MSEDCL's submission on CEA's Resource Adequacy study has been dealt with by the Commission in its Order dated 26 September 2024 in Case No. 155 of 2024. The relevant paras read as under:

“

*5.7 CEA has conducted the Resource Adequacy study for MSEDCL and the capacity projected by CEA considering 'Loss of Load Probability' and 'Expected Energy Not Served' is as under:*

|            | <b>Year</b> | <b>Coal</b> | <b>Gas</b> | <b>Nuclear</b> | <b>Bagasse + Biomass</b> | <b>Hydro</b> | <b>Wind</b> | <b>Solar</b> | <b>Hybrid (wind + Solar)</b> | <b>STOA/OA</b> | <b>Storage (4 Hours) + PSP</b> | <b>Total</b> |
|------------|-------------|-------------|------------|----------------|--------------------------|--------------|-------------|--------------|------------------------------|----------------|--------------------------------|--------------|
| <b>CEA</b> | 2033-34     | 27562       | 1076       | 1186           | 3439                     | 3949         | 15905       | 30285        | 0                            | 1457           | 2668                           | 87528        |

The present contracted and consented capacity of MSEDCL is as below:

|               | <b>Coal</b> | <b>Gas</b> | <b>Nuclear</b> | <b>Bagasse + Biomass</b> | <b>Hydro</b> | <b>Wind</b> | <b>Solar</b> | <b>Hybrid (wind + Solar)</b> | <b>FDRE</b> | <b>Storage (4 Hours) + PSP</b> | <b>Total</b> |
|---------------|-------------|------------|----------------|--------------------------|--------------|-------------|--------------|------------------------------|-------------|--------------------------------|--------------|
| <b>MSEDCL</b> | 22733       | 1077       | 1191           | 3439                     | 4273         | 3905        | 24785        | 2880                         | 1468        | 574                            | 66325        |

Thus, capacity addition required by MSEDCL by FY2033-34 is as under:

|               | <b>Coal</b> | <b>Gas</b> | <b>Nuclear</b> | <b>Bagasse + Biomass</b> | <b>Hydro</b> | <b>Wind</b> | <b>Solar</b> | <b>Hybrid (wind + Solar)</b> | <b>DRE</b> | <b>Storage (4 Hours) + PSP</b> | <b>Total</b> |
|---------------|-------------|------------|----------------|--------------------------|--------------|-------------|--------------|------------------------------|------------|--------------------------------|--------------|
| <b>MSEDCL</b> | 4829        | 0          | 0              | 0                        | 0            | 12000       | 5500         | 0                            | 12693      | 2094                           | 37116        |

”

13.3. From above, it is evident that MSEDCL’s proposed procurement of 1468 MW has been factored in to CEA’s Resource Adequacy Study and is justified.

13.4. Apart from above, the Commission notes that MERC RPO (Amendment) Regulations, 2024 stipulates RPO trajectory till FY 2029-30. The notified trajectory is as below:

| <b>Year</b>    | <b>Wind RPO</b> | <b>HPO</b> | <b>Other RPO</b> | <b>Total RPO</b> |
|----------------|-----------------|------------|------------------|------------------|
| <b>2022-23</b> | 0.81%           | 0.35%      | 23.44%           | 24.61%           |
| <b>2023-24</b> | 1.60%           | 0.66%      | 24.81%           | 27.08%           |
| <b>2024-25</b> | 2.46%           | 1.08%      | 26.37%           | 29.91%           |
| <b>2025-26</b> | 3.36%           | 1.48%      | 28.17%           | 33.01%           |
| <b>2026-27</b> | 4.29%           | 1.80%      | 29.86%           | 35.95%           |
| <b>2027-28</b> | 5.23%           | 2.15%      | 31.43%           | 38.81%           |
| <b>2028-29</b> | 6.16%           | 2.51%      | 32.69%           | 41.36%           |
| <b>2029-30</b> | 6.94%           | 2.82%      | 33.57%           | 43.33%           |

Further, for Energy Storage Obligation following trajectory has been stipulated:

| <b>Year</b> | <b>Storage (on Energy basis)</b> |
|-------------|----------------------------------|
| 2024-25     | 1.5%                             |
| 2025-26     | 2.0%                             |
| 2026-27     | 2.5%                             |
| 2027-28     | 3.0%                             |
| 2028-29     | 3.5%                             |
| 2029-30     | 4.0%                             |

13.5. **The quantum proposed to be procured by MSEDCL will supplement its effort to meet RPO targets, Energy Storage Obligation and fulfil past RPO shortfall. Apart from above, MSEDCL will be able to replace its costly peak power in crucial peak period. Considering these factors, the proposed quantum of 1468 MW of FDRE power procurement seems to be justified.**

**14. Issue B: Competitiveness of the rate proposed for approval.**

14.1. The Commission notes that proposed 1468 MW FDRE power procurement is based on competitive bidding process initiated by SJVN.

14.2. As the proposed FDRE project is inter-state project, any contractual issues including adoption of tariff is within the jurisdiction of the Central Commission. The scope of present proceedings is governed by Rule 8 of the Electricity Rules, 2005 which is reproduced below:

“  
***8. Tariffs of generating companies under section 79.- The tariff determined by the CERC for generating companies under clause (a) or (b) of subsection (1) of section 79 of the Act shall not be subject to re-determination by the State Commission in exercise of functions under clauses (a) or (b) of sub-section (1) of section 86 of the Act and subject to the above the State Commission may determine whether a Distribution Licensee in the State should enter into Power Purchase Agreement or procurement process with such generating companies based on the tariff determined by the CERC.***” (Emphasis added)

In the present case, the tariff of Rs. 4.38-4.39/kWh has been discovered through transparent process of competitive bidding and such tariff has been adopted by CERC vide its Order dated 01 August 2024 in Petition No.79/AT/2024. Therefore, scope of present proceeding is to determine whether MSEDCL be allowed to execute PSA at the tariff adopted by CERC.

14.3. **The Commission notes that in present case, MSEDCL has already executed PSA with SJVN on 13 March 2023 subject to approval of the Commission. The Commission notes that as proposed procurement of 1468 MW has already been factored in to CEA’s Resource Adequacy Study and also tariff is discovered through competitive bidding under Section 63 of the Electricity Act and same is adopted by CERC vide its Order dated 1 August 2024 in Petition No. 79/AT/2024 , the Commission allows MSEDCL to execute such PSA with SJVN.**

**15. Issue C: Trading Margin (7 Paise per Unit) in present transaction:**

15.1. SJVN submitted that in the proposed power transaction, it is acting as a trader/facilitator for a trading margin of Rs.0.07/kWh. The said Trading Margin in accordance with the Competitive Bidding Guidelines, 2023 as well as Regulation 8 (1) (d) of the CERC Trading License Regulations, 2020. The Trading Margin does not require any prior approval from the Commission and the transacting parties need to decide it mutually. MSEDCL is in agreement with SJVN.

15.2. The Commission notes that with regards to Trading Margin, Competitive Bidding Guidelines, 2023 stipulates following:

“

***h) ‘Intermediary Procure’ & ‘End Procurer’***

...

*(ii) The Intermediary Procurer shall enter into a Power Purchase Agreement (PPA) with the RE Power developer and also enter into a Power Sale Agreement (PSA) with the End Procurer. The PSA shall contain the relevant provisions of the PPA on a back-to-back basis. Trading margin, of Rs.0.07/kWh shall be payable by the End Procurer to the Intermediary Procurer.”*

15.3. **As Trading margin of Rs.0.07/kWh is stipulated in the Competitive Bidding Guidelines, 2023, the Commission allows trading margin of Rs.0.07/kWh to be payable by MSEDCL to SJVN.**

**16. Issue D: Availability of Transmission Corridor:**

16.1. MSEDCL in its submission categorically stated it is working in close co-ordination with MSETCL for transmission network development for being aligned with the requirements of MSEDCL. MSEDCL has communicated to MSETCL its future demand requirements from inter-state power stations.

16.2. The Commission notes that PSA executed between MSEDCL and SJVN contain following clauses:

“

***3.1 Obligations of Buying Entity:***

*3.1.1 Buying Entity undertakes that it shall: -*

.....



*(b)ensure availability of the interconnection facility and evacuation of power from the CTU/ STU interface of busying Entity's state periphery from the SCSD of the Project.*

*(c)be responsible for payment of the transmission related charges, losses and applicable RLDC/ SLDC Charges, limited to the charges applicable to the Contracted Capacity of Buying Entity under this Agreement, as determined by CERC from time to time.*

...

*(f)apply for required consent / NOC from STU/ SLDC/ concerned agencies for availing long term access / scheduling/ Drawal of the power as per applicable regulations, within 30 days of acceptance of such application from the RPD / REPG.*

...

*(h)be responsible for obtaining Grid Access as per the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 and its amendments as its own risk and cost.”*

**MSEDCL (being Buying Entity) is responsible for obtaining Grid Access/GNA as per the CERC (Connectivity and General Network Access to the interstate Transmission System) Regulations, 2022 and its amendments. Considering the above mentioned contractual settings, MSEDCL needs to be vigilant on transmission corridor availability to avoid any consequences as per provisions of the PSA.**

**16.3. Therefore, the Commission directs MSEDCL to coordinate with STU for timely implementation of strengthening and augmentation of planned inter-state transmission transfer capacities schemes on urgent and priority basis. If required, a suitable intervention from various Government Departments may be sought to resolve issues in clearances and Right of Way for timely implementation of such planned schemes.**

**17. Hence, the following Order:**

**ORDER**

- 1. Petition in Case No. 82 of 2024 is allowed and IA No.50 of 2024 is disposed of accordingly.**
- 2. The Commission accords its approval to the MSEDCL's proposal for procurement of 1468 MW Firm and Dispatchable RE Power from SJVN at competitive bidding tariff**




of Rs. 4.38-4.39/unit adopted by CERC vide its Order dated 1 August 2024 in Petition No. 79/AT/2024 plus trading margin of 7 Paise/unit for 25 years of Power Supply Agreement.

3. The Commission approves the Power Supply Agreement executed between MSEDCL and SJVN for procurement of 1468 MW from FDRE projects.
4. The power procured from SJVN shall be considered for meeting the Renewable Purchase Obligation requirement of MSEDCL.
5. Post signing of the Power Supply Agreement by parties, copy of the same shall be submitted for records of the Commission.

Sd/-  
(Surendra J. Biyani)  
Member

Sd/-  
(Anand M. Limaye)  
Member

Sd/-  
(Sanjay Kumar)  
Chairperson

  
(Dr. Rajendra G. Ambekar)  
Secretary

